

GAMING SYSTEM FOR EXTENDED PLAYER RETENTION

I. TECHNICAL FIELD

Generally this invention relates to the gaming field, that is the industry providing gambling opportunities for adults. Specifically, the invention focuses upon the segment of
5 that industry which develops or provides games either in a live format or through machines configured to present gaming opportunities to patrons. The invention focuses upon designing or providing games which the player finds sufficiently enjoyable so as to continue to play the game for a longer period of time. It presents not only specific games, but entire gaming paradigms which entice the player to continue or at least play the game for a longer period
10 of time. Since gaming profits can to some degree be viewed as a function of the amount of player time spent on a machine or at a game, the invention can afford the game operator or casino higher per player profits.

II. BACKGROUND

The gaming industry is a fascinating field with a number of unique attributes. Unlike
15 many other industries in which products or services are produced and provided based on a more simple cost-benefit perspective, gaming has evolved from a number of very different perspectives. First, the games themselves are designed to present to players an opportunity for great rewards with little investment. Even though probabilities may dictate otherwise, games are often presented with extremely large potential winnings so as to entice players to
20 participate. In addition, ancillary benefits – such as free food and free drinks – are frequently provided in order to entice players to both initially participate and to extend their participation in the particular games offered. The extent to which casinos or more generally game operators may go to entice players is perhaps most amazingly indicated by the lavish infrastructures often created in order to lure potential players. Immense structures imitating
25 wonders of the world or the like, such as the Taj Mahal or even great pyramids, are testaments to the fact that operators have clearly focused upon subjective and even aesthetic criteria in their attempts to obtain patrons and, of course, enhance profits.

While the grandiosity of such gaming establishments may make great headlines and
30 photo opportunities, it is to some degree surprising that the more fundamental aspect of the

player's involvement in individual games has not received attention to this degree of notoriety. This is not to say that no others have recognized the importance of enticing the player to continue to participate in the particular game selected once their participation has begun. It is simply to say that the degree of attention devoted to this perhaps more mundane
5 aspect is not comparable to the attention afforded the magnificence of the structures often surrounding that game.

Of course, it may be easily appreciated that the casino's profits can be highly influenced not only by the size of the individual bets players choose to make but also by the amount of time that the player participates in the game. To some degree, casino profits may
10 even be measured by the average player time at a particular game. Since the supporting infrastructure whether it be personnel, electronic games themselves, or even the facility housing all the events, can be considered in one model a fixed cost, expanded player retention can represent a direct impact on the casino's bottom line. While of course the average amount of time a player participates in a particular game varies from player to player, the
15 statistics can present an average player retention time. Any extension in this average retention time can thus have profound impacts on the profitability of the casino. It may also be a measure of the amount of entertainment the player experiences in their gaming participation.

It of course has been known to provide to players an extraordinary winning event,
20 often called a jackpot. Jackpots are often configured to present an extremely high winning opportunity to a player. They may even include any type of enhanced winning opportunity beyond the typically main purpose or immediate objective of the game. Of course, simple economics may dictate that such extremely high winning events may also be extremely improbable in their occurrence. For this reason, players who either consider themselves
25 unlucky or who take a more probabilistic approach to gaming may not be enticed by such opportunities. Since such players often have no way of knowing when the jackpot event might occur, the typical amount of time that these types of players might spend at a game is usually not influenced by this traditional type of jackpot event. Thus such jackpots may not typically be within the continued play tolerance for the player. The unpredictability or

improbability of this type of a jackpot may not meet the typical player's continued play tolerance.

Others have however tried to address altering jackpots in a variety of ways. For, instance, in U.S. Patent No. 5586766 to Forte, presents a jackpot event designed around
5 consecutive card draws such as three "naturals" in the game of blackjack. Again, however, such events are fairly improbable and their very consecutive nature makes the player not view the event as anything other than a higher jackpot event for a relatively improbable occurrence. Rare occurrence jackpots such as disclosed in U.S. Patent No. 5851147 to Stupak often do not retain the player. Secret jackpots such as is disclosed in one embodiment
10 of U.S. Patent No. 5564700 to Celona can also not achieve the desired purpose of this invention. In yet another approach, such as that of U.S. Patent No. 5487547 to Hobert there is disclosed a design which is the product of an effort to provide a jackpot based on multiple rollings of particular numbers in a craps game. No only is this type of event not designed for a card game, it also does not provide for the type of presentation to the player so as to greatly
15 influence their tolerance for continued play of that particular game. Since player retention is a goal, it must not only be presented but also perceived by the player so as to entice the player to continue playing the game beyond that statistically typical.

The present invention provides a way and even game paradigms for retaining players in particular gaming events. In this manner the invention takes a different direction from the
20 one usually taken by those skilled in the art. Instead of taking the approach of providing a larger jackpot amount or otherwise altering the jackpot event, the invention considers this as a direction away from the perspective pursued to achieve extended player retention. Perhaps surprisingly while there has been a long felt need to achieve retention of the players participating, and perhaps surprisingly while the implementing arts and elements have long
25 been available to achieve the direction that the present invention goes, those skilled in the art had perhaps not fully appreciated that the nature of the problem. They may have even been preconditioned to some degree by the directions others had taken in enticing players.

To the extent the efforts taken by others are considered substantial, perhaps even to the extent that billions of dollars have been spent on infrastructure, it can be seen that those

desiring to entice players may have even simply failed to understand the nature of the problem and the impact of the game itself on player retention. It is even possible that the results of the present invention might be considered to some degree unexpected. The prior perspectives or even the approach previously taken might cause those to view the present invention with disbelief or incredulity. This may be especially true of those involved in pursuing the traditional approaches.

To some extent the attempts by others may have been inadequate because they failed to see the true nature of the problem or because they failed to address real commercial needs involved from this perspective. Perhaps also surprising is the fact that the present invention achieves its objectives with an unexpected degree of simplicity. This may represent not just a gradual improvement over prior art attempts but rather the presentation of new approaches which may be viewed as or may prove critical in achieving extended player retention. As each of the various independent claims and the discussion surrounding those elements shows, these potentially critical limitations may represent a host of different perspectives. Thus, the present invention represents not just the mere exercise of ordinary skill in varying gaming designs, but rather entirely different approaches to the player's experience.

III. DISCLOSURE OF INVENTION

Accordingly, the present invention provides for game designs and devices, and even methods of play, that present jackpot events for a player which may never be lost or taken from them, which may include a display decrementing the distance that the player is from the jackpot event, which may be based upon common events intrinsically included in the game, which may utilize a number of events for card and other types of games, and which even may provide for multiple jackpots in which the player is constantly presented with a seemingly achievable distances at all times.

Thus a general object of the invention is to achieve extended player retention in specific games and in any gaming environment. In keeping with this general object, goals of embodiments of the invention may include presenting differing types of jackpots to a player in which the player does not merely perceive the jackpot as a random somewhat improbable event but rather can see progress toward the jackpot. In addition, a goal can be

to present games in which the player is constantly enticed with a not-too-distant jackpot event.

Naturally, further goals and objects of the invention are disclosed throughout other areas of the specification and claims.

5 IV. **BRIEF DESCRIPTION OF DRAWINGS**

Figure 1 presents a representative illustration of one type of player presentation according to one embodiment of the invention.

Figure 2 presents a conceptual illustration of the gaming interactions elements in a general sense.

10 Figure 3 presents a conceptual illustration of a repetitive-event embodiment of the present invention.

Figure 4 presents a conceptual illustration of a jackpot decremter embodiment of the present invention.

15 Figure 5 presents a conceptual illustration of a jackpot reset embodiment of the present invention.

Figure 6 presents an expanded display according to one poker embodiment of the present invention.

Figure 7 presents an expanded display according to one Keno embodiment of the present invention.

20 Figure 8 presents a representative illustration of one type of Keno device according to a Keno embodiment of the invention.

V. MODES FOR CARRYING OUT THE INVENTION

As can be easily understood, the basic concepts of the present invention may be embodied in a variety of ways. The invention involves both methods and devices to accomplish the appropriate method. In this patent, the methods are disclosed both separately
5 and as part of the results shown to be achieved by the various devices described. Importantly, all of these facets should be understood to be encompassed by this disclosure.

As mentioned earlier, the invention is founded upon a variety of particular game processes. These can include card based games such as poker or the like and may also include other types of games such as keno or the like. Perhaps of initial importance is the
10 possibility of utilizing the present invention in a slot machine context where the player is presented with a slots game. As can be easily understood by those involved in the gaming field, slot machines may present individual events or may even present a card game of some type. Poker may of course be played on a slot machine. Slot machines themselves are also of initial interest to the present invention because they are often electronically configured
15 devices. Whether involving a video display or mere electronic control of a more mechanical display, the slot machine may involve a base game generator which electronically controls outcomes and randomly generates events. The slot machine may also present a card game process as can be easily understood.

Regardless of the type of gaming event selected whether it be electronic, machine
20 oriented, or a gaming event presented by real live human operators, the gaming events may be designed to provide a particular game process, whatever it may be, to a player so that the player may involve themselves in the game and act to achieve various outcomes. By utilizing varying gaming events the player can act in a manner responsive to a game generator through some type of player interaction element.

25 As those skilled in the art may easily appreciate, the games themselves may be generated by software and so many of the various elements involved may actually be subroutines or other portions of software coding presented to a programmable computing device. Thus the interconnections shown should be understood as illustrative and for conceptual purposes only. They should not be viewed as limiting as pure hardwiring or

mechanical interconnection may not be necessary. Regardless of the configuration, however, the general game may be presented to the player through a great variety of displays including but not limited to a type of slot machine and display as indicated in Figure 1.

The entire player interaction in a general sense may be conceptually illustrated as shown in Figure 2. As can be seen in Figure 2, the game device may include a game generator (1) which may be a mechanical, electronic or other type of device such as portions of software code designed to generate a particular game process be it a card game, a keno game, or the like.

The game generator (1) may provide an opportunity to play a game and may be responsive to a player interaction element (2) through which the player may interact or involve themselves in some fashion with the game. The player interaction element (2) may of course represent buttons, touch screens, machine levers, money input, or even a board or table or the like. Importantly, however, the game generator (1) (which may be also nothing other than human interactions) may be responsive to input of the player interaction element (2).

Throughout this disclosure, it should be understood that in using the term "responsive", the broadest sense is intended. There may be intervening elements or translational components but in general all that is necessary is that the change or occurrence within one element achieves -- either directly or indirectly -- a change or occurrence within another element in order to be "responsive".

As in typical electronic gaming and other events, the game itself or merely some aspect relative to it may be presented to the player through some type of display (3). As mentioned earlier, the display (3) may be a mechanical display, human interaction, a board, cards, or even a video display among other possibilities. The salient aspect of the display (3) is simply that it present some information to the player in some form.

Obviously, the enticement of any game is the potential of some sort of payout upon placement of a bet. To provide for a payout, the gaming device as shown in Figure 2 can

conceptually present some type of payout element (4). Furthermore, the game may be designed to be easily re-instituted or re-initiated. For this purpose the game may include a game initiator (5), a game conclusion element (6), and maybe even most importantly a game re-initiator (7). Each of these need not be separate elements and even be thought of as being
5 present as part of the game generator (1).

Either beyond merely routine play or as part of it, the system itself may include some sort of jackpot event for the player. In such an arrangement, the game may be considered to include some type of jackpot event standard element (8) which may serve to establish the standard against which achievement of the jackpot is determined. Whether human memory
10 or an electronic feature, upon the achievement of the particular jackpot event, the system may include a jackpot payout element. This may be configured to include payout to the payout element (4). Depending upon the type of jackpot event selected, there may be a jackpot reset (9) which serves to begin anew the process of determining the achievement of a jackpot. In at least one embodiments of the present invention, this can be important because the jackpot
15 may be a jackpot which carries over from one game to the other. Thus, a system may include a jackpot carryover (10). Again, depending upon the type of jackpot selected, there may even be included an event counter (11) which can be used to determine the achievement of the particular jackpot event provided by the jackpot event standard element (8). In at least one embodiment of the present invention, the system may include a jackpot status display (12)
20 from which a player can constantly or at least periodically determine their status with respect to the selected jackpot event.

A complete gaming event may be of a type designed to be repetitively presented to a player. Thus, an individual game may be both instituted and concluded in an embodiment of the current system. The entire system may provide a repetitively re-instituted game
25 process whereby another individual game or gaming event can automatically (or through player interaction) be caused to re-institute. In this fashion the game generator (1) may include or be considered as a repetitive game generator. Upon concluding the individual game, it may be possible that another individual game is re-instituted even as part of the particular game process.

Although common to present jackpots to players, it is sometimes less common to establish a jackpot event which is intrinsically is part of the game. Often it is necessary for a player to place a separate bet in order to participate in a jackpot round. This can have the problems mentioned earlier. In one embodiment of the invention, the jackpot may be
5 intrinsically associated with the game such that upon playing the game, the jackpot is automatically associated with the game and intrinsically presented to the player. The jackpot can also be always available as part of the interaction in the game. Thus, the system may include an intrinsic jackpot association element or even an automatic jackpot association element (13) as shown in Figure 2. The jackpot may thus be automatically associated with
10 the game and may even be included as part of an initial play element such as may be included through the game initiator (5). Naturally, both the jackpot association element and the game initiator or initial play element may be automatically triggered such that upon the conclusion of the play, another game (or at least an initial screen to provide for another game) is automatically initiated.

15 As mentioned earlier, jackpots are traditionally associated with relatively improbable events. While the traditional thinking may be that this may make sense for economic reasons, as the present invention shows, it may be sub-optimal from the perspective of retaining players on a particular machine or in a particular process. In one embodiment, the present invention presents jackpot events which are based upon relatively common
20 occurrences. In this fashion, the player can perceive the jackpot as more achievable, can perceive progress toward it, or can even perceive it as more likely to occur. The player may affirmatively perceive progress toward the ultimate jackpot.

Individual common events may not necessitate an immediate jackpot payout. Instead, the common-occurrence jackpot event may merely be based upon a relatively common event.
25 By relatively common event, it is meant that at least one of the individual events making up the overall common occurrence jackpot event may occur frequently enough to maintain the player's interest in continued play and even to expand the time that they would continue to play the game. In this fashion, either the jackpot event standards element (8) or the game generator (1) may be configured to establish at least one common-occurrence jackpot event.

Thus, jackpot event standards element (8) may be configured to actually be a common-occurrence jackpot standards element.

In one embodiment of a system using a common-occurrence jackpot event, the occurrence may be selected as one having relatively high probability of occurrence. This may be defined in absolute terms or in terms of specific events to existing games. For instance, in a specific game refinement, the common-occurrence jackpot event may be based upon occurrences such as those listed for card games presented in Table 1. Naturally these should be viewed as representative only; in keeping with the broad coverage intended, other possibilities may be developed or may exist.

10

15

20

OCCURRENCES FOR A HAND-BASED TYPE OF POKER-ORIENTED COMMON-OCCURRENCE JACKPOT EVENT	
straight game event	
flush game event	
full house game event	
three-of-a-kind game event	
two pair game event	
jacks-or-better game event	
queens-or-better game event	
kings-or-better game event	
aces-or-better game event	
losing game event	

TABLE 1

25

Sample Source Occurrences for A Hand-Based Type of
Poker-Oriented Common-Occurrence Jackpot Event

Similarly, in the refinement of a common-occurrence jackpot event based upon a numerical analysis, the jackpot event may be selected from events having probabilities of greater than numbers such as presented in Table 2. There may even be a jackpot for every

single hand. Again, naturally these should be viewed as representative only; in keeping with the broad coverage intended, other possibilities may be developed or may exist.

	A PROBABILITY-BASED TYPE OF POKER-ORIENTED COMMON-OCCURRENCE JACKPOT EVENT	
5		game events having a probability of greater than about 100 in 10,000
		game events having a probability of greater than about 110 in 10,000
		game events having a probability of greater than about 130 in 10,000
		game events having a probability of greater than about 220 in 10,000
		game events having a probability of greater than about 550 in 10,000
10		game events having a probability of greater than about 700 in 10,000
		game events having a probability of greater than about 1200 in 10,000
		game events having a probability of greater than about 2000 in 10,000
		game events having a probability of greater than about 5000 in 10,000

TABLE 2
Sample Source Occurrences for A Probability-Based Type of
Poker-Oriented Common-Occurrence Jackpot Event

Of course, in order to achieve the appropriate payout, (as distinct from achieving extended player retention) the jackpot may be configured as a number of multiple events. This type of configuration may even be specific to card games such as poker or even games
20 such as keno. Under this type of embodiment, the system may present repetitive events such as a number of occurrences of a particular event. For example, utilizing one of the type of events shown in Table 1, the system may be configured to pay a jackpot amount upon the occurrence of 20 full house game events. In this fashion the player can understand that each
25 conceptual illustration of a system according to this type of game paradigm is illustrated in Figure 3.

In Figure 3, it can be seen that it is possible to configure a system to replace or include as part of the event counter (11) a multiple event tracker (15). This multiple event tracker (15) may thus respond to or inversely influence the actions of a comparator (16)

which may serve to compare the events tracked against either the jackpot event standards element (8) or even some separately included event memory element (17).

Throughout this disclosure, it again should be understood that in defining the various elements involved, since many of the elements can be configured in a host of different ways, 5 the actual names used and even the replacement of one element by another may not signal any difference in operation of the particular element. This is particularly true since the system may be software based and various lines of code may actually be used to provide the element desired. Configurations using the above type of embodiment may range from systems utilizing the events counter (11) as being directly responsive to the jackpot standards 10 element (8) or may employ other configurations. As explained, separate elements may or may not be physically or conceptually present. Importantly, even though the various elements might be individually called out, if the system achieves the result described or accomplishes the purposes mentioned, they may be considered as presenting that type of an element. For instance, in the more simplified design in which event counter (11) is 15 configured to be directly responsive to jackpot event standards element (8), it would be understood that jackpot event standards element (8) could actually provide an event memory element such as event memory element (17) illustrated separately. Similarly, the counter or the standards element may serve as providing a comparator (16) as again separately illustrated. This type of alternative configuration and variation in element names should be 20 understood as encompassed by the description throughout the entire disclosure.

The system may employ a multiple event occurrence as the basis for a jackpot event. Multiple event occurrences may be selected or configured in a variety of different ways. Of course, it may be simply a repetitive event. It may also be a non-consecutive event. This can be significant because it can alter the player's perception of the likelihood of achieving the 25 event. For example, players regularly recognize that it is unlikely that they will achieve three full houses in a row, however, they may recognize or at least perceive (even if only subconsciously) that they may be able to achieve 20 full houses given an significant amount of time to play the game. This can be a basis for expanding players' retention in the game process. They may even achieve a satisfaction by having achieved a jackpot. By using 30 repetitive events which are either identical or perhaps at least similar, the multiple event

tracker (15) illustrated in Figure 3 may actually serve as a similar game occurrence tracker. Furthermore, the event counter (11) or perhaps even the multiple event tracker (15) may be automatic so as to present an automatic event counter. Thus, they may serve to track each happening of a particular game occurrence qualifying for a repetitive occurrence jackpot. In
5 this fashion the game can present to the player the opportunity of achieving or obtaining a jackpot occurrence by simply accomplishing a plurality of a repetitive occurrence jackpot events. These of course may be automatically counted for a variety of different game events.

The jackpot event standards element (8) may even be configured so as to present a high event occurrence number jackpot event element. In this type of an embodiment of the
10 present invention, the invention may utilize the realization that continued progress toward a goal may be very important in retaining the player in the game process. By using a high event occurrence number, that is a number which presents to the player an opportunity for relatively frequent progress toward the ultimate goal, the invention may help present a game to the player which may retain the player for a longer period of time. In a refinement of the
15 type of high event occurrence number envisioned, jackpot events may be selected from numbers such as those indicated in Table 3. Upon the player achieving such high number of events, the player may actually attain the jackpot goal and achieve the jackpot payout. Again, naturally these should be viewed as representative only; in keeping with the broad coverage intended, other possibilities may be developed or may exist.

	HIGH EVENT OCCURRENCE NUMBERS
	at least about 2 non-consecutive game event occurrences
	at least about 5 non-consecutive game event occurrences
	at least about 5 game event occurrences
5	at least about 10 game event occurrences
	at least about 20 game event occurrences
	at least about 40 game event occurrences
	at least about 50 game event occurrences
	at least about 60 game event occurrences
10	at least about 80 game event occurrences
	at least about 100 game event occurrences

TABLE 3
Sample High Event Occurrence Numbers for One Type of System

It may be important in certain embodiments to automatically count each of the relevant occurrences for the player. While of course it is possible for the player to keep track of the number themselves, the very purpose of the invention, namely, achieving extended player retention, may favor that the game actually present and automatically count each happening of the desired event. In this fashion the player may not perceive the event as a relatively random occurrence but may actually see progress toward the jackpot event. Again, by using similar game occurrences, the events may be more simply perceived and remembered by the player. Naturally, of course, disparate game occurrences (such as one of each of a various list of items) may be utilized as well.

Regardless of the type of event(s) selected, it may be important for the jackpot event to be a non-consecutive, repetitive-occurrence jackpot event. By establishing such a type of jackpot event for the player, the player may be able to see constant progress or may at least perceive the event as more achievable and may continue to play the game so as to ultimately achieve the event. Thus the game may automatically count the multiple game event occurrence, compare the count, and even track prior game events, such as other occurrences of the same hand, or the like. By doing this for the player, the player may realize that the

game tracks periodic events and may even include a periodic event determiner (18) as shown in Figure 3. Again, it should be understood that the periodic event determiner (18) may be composed of individual elements previously discussed or may be its own separate element. By using repetitive events attained in different games or plays, the multiple event tracker (15) may even serve as a prior game event tracker. Since events may carry over from one game to another, the game may also provide for retaining the count or even automatically retaining the count across multiple game events.

As mentioned earlier, the distance that the player is from the ultimate jackpot event may be a significant factor in retaining the player's participation in the game. It seems only intuitive that most typical players would not leave a game if they are only one not-improbable play away from an enhanced winning opportunity. In embodiments utilizing this concept, the system may be configured to include both distance calculation and distance display elements. Such a configuration is shown conceptually in Figure 4. As can be seen, what was designated earlier as the event counter (11) may be replaced by or may include some type of jackpot distance calculation element (19). This jackpot distance calculation element (19) may influence or be responsive to a jackpot distance memory element (20). The jackpot distance memory element (20) may even serve to retain the actual jackpot distance from game to game. Together both jackpot distance memory element (20) and jackpot distance calculation element (19) may be components to an automatic jackpot distance alteration element (21). This element may in turn influence a player jackpot distance display (22).

As may be appreciated, the player jackpot distance display (22) may be separate or may be a portion of the display (3) presented to the player. This portion may even serve or incorporate or serve as part of an automatic jackpot distance decrementor (23). Through this type of a configuration it can be understood that the player can be more appropriately enticed to continue play of the game. By serving as a decrementor, that is a counting element which decreases the number of events remaining, the player can actually see progress toward the ultimate jackpot event. For example, if the player is only three events away from a 60 event occurrence based on a not overly improbable occurrence, it seems unlikely that the player would quit playing the game. Instead, it seems likely the player would extend his or her play

to continue so as to ultimately achieve those three events and obtain the known jackpot payout amount. Thus, in one embodiment, a game system could serve to alter the distance remaining or just alter any distance until the jackpot event is achieved.

By decreasing the distance rather than increasing the amount achieved, the game may
5 serve to show constant progress to the player. This progress can be the result of events which occur throughout the player's interaction with the game. As another aspect of enticing the player, the display such as the player jackpot distance display (22) may be substantially continuously presented to the player. By being presented substantially continuously, the display may be shown to the player so that the player can constantly be reminded of progress
10 toward an ultimate goal and constantly be reminded that they have achieved a certain amount of progress so far. This of course may be presented numerically or graphically. In this fashion, the entire system can include a jackpot distance decrementor which presents a decremented distance throughout the game. By indicating this distance, either periodically or substantially continuously, the player can constantly be reminded of an assured payout
15 event if they simply continue the game for a long enough period of time.

As mentioned earlier, an important object of the invention is to expand the player's tolerance for continued play of a game. Certainly one can estimate the tolerance for a player's continued play of a game. This tolerance, may constitute a continued play tolerance. It may be input directly or indirectly by the system including a continued play player
20 tolerance estimation element (24). As shown in Figure 4, this continued play player tolerance estimation element may be part of or provide an input to the jackpot event standards element (8). In one embodiment, the continued play player tolerance estimation element (24) may provide for a number of optimal repetitive events as the determinant utilized (perhaps subconsciously) by the player to decide to continue to play the game. This number of events
25 may vary as shown in Table 4. Again, naturally these should be viewed as representative only; in keeping with the broad coverage intended, other possibilities may be developed or may exist.

- SHOCK WAVE
POKER
- MARVELL

OPTIMAL PLAY REPETITIVE EVENT NUMBERS	
5	less than about 5 additional repetitive events
	less than about 10 additional repetitive events
	less than about 15 additional repetitive events
	less than about 20 additional repetitive events
	less than about 50 additional repetitive events
10	less than about 100 additional repetitive events
	less than about 10 additional repetitive events for each machine
	less than about 15 additional repetitive events for each machine
	less than about 20 additional repetitive events for each machine
	less than about 50 additional repetitive events for each machine
15	less than about 100 additional repetitive events for each machine
	less than a number of repetitive events which represents minimum bets of less than about \$1.00
	less than a number of repetitive events which represents minimum bets of less than about \$5.00
	less than a number of repetitive events which represents minimum bets of less than about \$10.00
	less than a number of repetitive events which represents minimum bets of less than about \$15.00
20	less than a number of repetitive events which represents minimum bets of less than about \$20.00
	less than a number of repetitive events which represents minimum bets of less than about \$25.00
	less than a number of repetitive events which represents minimum bets of less than about \$50.00
	less than a number of repetitive events which represents minimum bets of less than about \$100.00
	less than a number of repetitive events which represents minimum bets of less than about \$500.00
	less than a number of repetitive events which represents minimum bets of less than about \$1000.00

TABLE 4
Optimal Play Repetitive Event Numbers for One Type of System

In a situation where multiple machines are configured to be linked together, the continued play player tolerance estimation element (24) may even include events for each machine in the entire linkage of machines. As may be appreciated, in such an arrangement, the Jackpot standards element (8) may even be configured to serve as a composite jackpot 30 event standards element. As can be seen from Table 4, the tolerances used may be

represented by numbers of additional plays, minimum bets on plays, or even by a number of optimal repetitive events, such as only having four more full houses necessary in order to win the jackpot. While of course optimally (e.g., if ones luck were perfect) this may be achieved in four hands, it may statistically require more hands than that to ultimately be achieved.

5 As mentioned earlier, the game system may include some type of display (3). This display (3) may include a jackpot status display (25). The jackpot status display (25) may include or actually be a player jackpot distance display (22). Other aspects may also be included or provided. Of course, the jackpot status display (25) may be a substantially continuous player display. In situations where multiple jackpots are concurrently tracked,
10 it may also represent a concurrent player jackpot status display. By indicating the jackpot status throughout the player's participation, the player may be able to monitor and constantly see progress as mentioned earlier. Attention may even be periodically drawn to the display through so activity programmed into the system. To the extent simplicity of presentation is deemed appropriate or optimal, the display may be substantially continuously displaying only
15 one jackpot (for instance such as the one closest to being achieved) or it may indicate or display a plurality of multiple jackpots. Of course, it may also display every jackpot currently being tracked to the extent it is deemed not to overwhelm the player with information. As a component of retaining the player, it may be important to keep the game, the jackpot event, and even the presentation simple. System use of existing known poker
20 hands, known games, and the like may be important in this regard.

As mentioned earlier, it may be significant to provide for common occurrences as a basis for jackpot calculation. It may even be appropriate to count losing hands or the like. For instance, while certain hands may be deemed to be a winning circumstance with winning defined as achieving some type of payout other than as part of a repetitive occurrence, other
25 hands which normally achieve no or perhaps a smaller payout may be used for a jackpot as well. These may be referred to as losing circumstances. In such a situation, the jackpot standards that were met may actually comprise a losing circumstance jackpot standards element. Thus, by not only establishing but making available at least one losing circumstance based jackpot event to the player, the player may never feel that their luck is
30 down as even the losing circumstances can present progress toward an ultimate payout. In

STAMP

this instance, a multiple event counter such as counter (11) may actually serve as a losing circumstance multiple event counter. Similarly, the comparator (16) and the multiple event tracker (15) may serve to actually track losing circumstances for jackpot purposes. Thus, the Jackpot standards element (8) may even be configured to serve as a no-win circumstance
5 jackpot standards element.

One aspect that may be unique in some embodiments of this invention is the possibility of the system presenting a jackpot probability alteration element. For example, the periodic event determiner (18) or various elements relevant to it may actually serve as a jackpot probability alteration element in the sense that the probability of actually achieving
10 a jackpot varies as the player progresses toward the jackpot event. For example, while it may be somewhat improbable for the player to achieve 60 events, when they only have three of those 60 events left, the actual jackpot probability may be dramatically varied. This could be especially significant if the machine is capable of being left in this almost finished state for another player. The varied probability may even exist in either a pure statistical sense or
15 it may even exist only in a player's perception. Importantly, actions taken by the player can alter the probability of the jackpot ultimately occurring at any given point in time or within so many gaming events.

As mentioned, the payout element (4) may serve as a jackpot payout element. This may be activated and may pay the player achieving the ultimate number of events. While in
20 one embodiment, the jackpot may be intrinsically associated with the game, in other embodiments it may not. For example, in order to be eligible for the jackpot, players may need to take certain actions. This can exist as a standard set at the beginning of the game or it may vary dynamically throughout the game. For example, as shown in Table 5, a variety of player criteria can be used to determine participation in the jackpot. (It may be noted that
25 a distinction may even be made between the selection of a player for jackpot participation and the selection of the amount of the player's payout. Different elements to achieve these two distinct items may be included.) Notice that set amounts of play in a set time or play at a rate are both potential player criteria for an embodiment of the system. As to the player criteria for jackpot participation, again it should be understood that the criteria listed should

be viewed as representative only; in keeping with the broad coverage intended, other possibilities may be developed or may exist.

ACRGS

JACKPOT PARTICIPATION PLAYER CRITERIA	
	players having made a maximum bet
5	players having made a maximum bet during some time period
	players having played a certain number of games
	players having played a certain number of games during some time period
	players having played 25 games
	players having played 50 games
10	players having played 100 games
	players having played 250 games
	players having played 500 games
	players having played 1000 games
	players having played or played at a rate of 12 games during a 1 minute time period
15	players having played or played at a rate of 75 games during a 10 minute time period
	players having played or played at a rate of 90 games during a 10 minute time period
	players having played or played at a rate of 80 games during a 20 minute time period
	players having played 12 games during a 1 minute time period
	players having played 75 games during a 10 minute time period
20	players having played 90 games during a 10 minute time period
	players having played 80 games during a 20 minute time period
	players having played at a rate of 12 games during a 1 minute time period
	players having played at a rate of 75 games during a 10 minute time period
	players having played at a rate of 90 games during a 10 minute time period
25	players having played at a rate of 80 games during a 20 minute time period
	players having played a certain dollar amount during some time period
	players having played a variable dollar amount in a unit period of time
	players having played an increasing dollar amount in a unit period of time as the jackpot event gets closer
30	players having played a \$25.00 amount
	players having played a \$50.00 amount
	players having played a \$100.00 amount

	players having played a \$250.00 amount
	players having played a \$500.00 amount
	players having played or played at a rate of a \$50.00 amount during a 1 hour time period
	players having played or played at a rate of a \$100.00 amount during a 1 hour time period
5	players having played or played at a rate of a \$250.00 amount during a 2 hour time period
	players having played or played at a rate of a \$500.00 amount during a 5 hour time period
	players having played \$50.00 amount during a 1 hour time period
	players having played \$100.00 amount during a 1 hour time period
	players having played \$250.00 amount during a 2 hour time period
10	players having played \$500.00 amount during a 5 hour time period

TABLE 5
Jackpot Participation Player Criteria

As can be seen from Table 5, participation may require play within a certain amount of time. By periodically requiring specified events, the players may realize they have to achieve certain things in order to be counted in the payoff. As mentioned earlier, since the events may be time based, the system may include a timer (27). This may also include a time limit memory element (28). This time limit memory element (28) may even represent timing between actions in a game. In this fashion, a frenzy can be developed whereby the player must play a number of events within a varying amount of time. They may even be required to compete with each other to gain an increased share of the jackpot payout. By varying the amount of time, the system may actually be able to develop a frenzy among players where those participating must be rapidly playing the game in order to be counted for potentially even a varying percentage of the jackpot payout. This could be significant in situations in which a relatively large jackpot payout is certain and is only a number of plays away. By rushing the player to continually play more and more games in a given period of time for higher participation or any participation at all, the players can become frenzied over the participation. This not only can achieve greater player satisfaction and entertainment, but it also may help retain the player for a longer period of time or enhance operator profits. These events may also be required in order to avoid a resetting of the jackpot counter or resetting of the jackpot event. Similarly, the variability of a required event may not just be time based, but may require events such as a minimum bet or a maximum bet or the like. In this fashion

the jackpot association element (13) may include a minimum-bet-or-better jackpot association element or other such aspect. There may even be included a maximum bet determiner (29) such as to determine if the player has made the maximum bet in order to be included or otherwise. A simple player confirmation element (30) may also be included to
5 make sure that the player has not stopped playing the machine. Finally, continued participation or some degree of participation may be determined through the use of some sort of random event generator (31) so as to require an unknown action in order to be considered a participant in the jackpot. Perhaps most significantly, though, by keeping a jackpot available to the player even if requiring an increasing dollar amount in a unit period of time
10 such as the frenzied play embodiment described earlier, the player may be retained even as the jackpot event gets closer.

Of course variations in the payouts may be selected as appropriate. For instance, the player achieving the final step may be paid, or the player achieving the final step may achieve a significant portion of the jackpot amount. All this can be varied significantly as the jackpot
15 gets closer to even achieve a somewhat more frenzied play among those participating. For instance the players playing above a particular rate may even achieve a higher amount of winnings.

Once a jackpot is paid it may be appropriate to reset the counter or reset the event. It may even reset to a pre-determined base level. By presenting the jackpot event across a
20 variety of game plays, the payout element (4) may actually be an intergame jackpot payout element to which the jackpot reset (9) may be responsive. Jackpot reset may also occur by other than payout. For example, it may be time based and may even include some type of alarm to warn the player of an imminent occurrence of reset. This may also provide the player an opportunity to take action to avoid the reset event. Such a system is shown in
25 Figure 5 in which the basic system is expanded to include the jackpot reset alarm (26) and potentially even a timer (27). These, of course, may be configured in any fashion and again since software may be involved, the elements may not may not even connected as indicated for merely conceptual purposes. As mentioned, the system may acquire certain events of a player in order to be considered as part of the jackpot event. For instance, playing the game
30 within a specified amount of time may be required either individually or in a linked machine

embodiment. Similarly, occasional or isolated maximum betting may be required. It may even be as simple as the player indicating that they are still playing the game in order to be counted for the jackpot or in order for the jackpot counter not to be reset. To the extent these elements are included, the display (3) may include or may actually be a player jackpot reset-
5 avoidance information display. In such a fashion the display may tell the player the actions necessary in order to avoid being dropped from jackpot participation or in order to avoid reset of the jackpot counting.

Perhaps a fundamental concept presented in this invention is the aspect of providing for a jackpot which can be configured as one which is never lost. This jackpot may be
10 retained among various game events as an intergame event without being affected by other plays, other players, or other occurrences. Being unaffected by other's play may also contribute to the sense of being unaffected by other's bad luck. Regardless, of the effect on the player's perceptions, the jackpot standards element (8) may also include or be a jackpot probability retainer, or any type of retainer which keeps the jackpot going between gaming
15 events. In aspects presenting the possibility of an altered probability of occurrence, this altered probability may be retained as well.

In keeping with the concept of having a jackpot which is never lost, the system may include a time unrestricted element in place of the timer (27). The time unrestricted element may even be provided through an absence of a contrary element. The time unrestricted
20 element may provide no time limit on actions by the player in order to avoid any reset of the jackpot counting. Thus, the jackpot carryover (10) may continue unaffected by the actions of others so long as the player continues to interact with the game or even so long as the game is on. By carrying at least one of the jackpot events across to another game, the player may be enticed to continue playing the game as is an important object of the inventions.
25 Representing a jackpot across individual game events in continued play, the payout element (4) may actually present an intergame jackpot payout element and even the jackpot event may be an intergame jackpot event.

A potentially important component for players being retained and continuing to play is the possibility of presentation of concurrent jackpot events. For instance, a system may

concurrently present a plurality of jackpot events to the player. The jackpot events may be offered or presented in a fashion such that the player is always close to one or another of the events. In this manner, a staggered probability jackpot event may be desired. By presenting multiple staggered probability jackpot events, it is possible to configure the game so that the player is at any point in time close to one or another event. Since each of these may be automatically counted for each different game event, and since each may be concurrently displayed in some embodiments, the system may provide a plurality of multiple event trackers, a plurality of distance calculation elements, a plurality of distance decrements, and the like. Each of these may be important to constantly retaining the player's attention and participation in the game. For example, at any one given point in time, the player may be only three or four or so events away from obtaining the jackpot payout. In this fashion it may be unlikely or at least may be more difficult for the player to leave the game. Importantly, the player may take an attitude that they would prefer not to quit the game and would prefer to continue to play just a little bit longer in order to achieve the very next jackpot event.

As mentioned earlier, all of this may be done with linked machines as well as singular machines. In this fashion players may see progress even when they themselves do not achieve it. By combining players on different machines, each action by each player may be utilized to present a composite jackpot event for each player in the system. All players playing in the system in any given point in time, all players having achieved or accomplished certain events, all players having made certain plays or the like may be participating as determined to be optimal for extended player retention.

Furthermore, the jackpot event may be selected from a host of different events which may be listed as above. Various poker games possibly used in this system may be varied as well. A sample of some of the poker games which may be employed is listed in Table 6. As but one embodiment of the gaming system, a poker implementation can even be designed as a special progressive poker game where a percentage of the bet goes into a kitty every time a certain hand is hit. When a predetermined number of hands are hit of that type of hand, the player gets the total of the jackpot. An exemplary payable using a one bet design is shown in Table 7. When the counter reaches 0, the player may receive what is in the jackpot at that point in time. The amount that is put into that jackpot can also vary depending on the amount

bet and the value of that hand. There may even be bonuses that can only be won by the maximum bet player. Further, if certain hands are hit while betting the maximum, and the decremented distance hits zero, there may be added a specific amount to the jackpot payout. Values such as adding \$300 on a royal flush diamonds, adding \$200 on hitting a mini royal, 5 adding \$150 on hitting four aces, or even adding \$100 when hitting a full house of aces and eights are all but one set of possibilities. Consistent with an embodiment in which each hit may cause a jackpot contribution, it can be seen in the expanded display shown in Figure 6 how one game can progress to increase jackpots amounts. As to each of these table values, again, these should be viewed as representative only; in keeping with the broad coverage 10 intended, other possibilities may be developed or may exist.

5

10

15

20

25

POKER GAMES WHICH MAY BE THE SUBJECT OF BY THE SYSTEM	
	Aces and Eights
	All American Poker
	Bonus Poker
	Bonus Poker Delux
	Double Bonus Poker
	Double Double Bonus Poker
	Double Double Jackpot Poker
	Double Jackpot Poker
	Jacks or Better
	Bonus Deuces Wild
	Deuces Wild
	Deuces Delux
	Deuces and Joker Wild
	Double Joker Poker
	Four Joker Poker
	Five Joker Poker
	Joker Wild - Kings or Better
	Joker Wild - Aces or Better
	Joker Wild - 2 Pair or Better
	Joker Wild - AC 5K Jackpot
	Loose Deuces
	Sevens Wild
	Pick'em Poker

TABLE 6

Sampling of Poker Games which may be Generated by the System

	Added to JP When Hit	Number of hands for JP	Win	Jackpot (JP)	Jackpot Starts
Royal Flush	5000%	2	800	Progressive	\$200.00
Straight Flush	1000%	5	60	Progressive	\$50.00
4 of a Kind	300%	10	25	Progressive	\$20.00
Full House	100%	20	8	Progressive	\$10.00
5 Flush	100%	25	5	Progressive	\$10.00
Straight	100%	25	4	Progressive	\$10.00
3 of a Kind	50%	100	3	Progressive	\$5.00
Two Pair			1		
Jacks or Better			1		

10

TABLE 7

Sample Poker Pay Table for One Type of Poker-Based System

As should be appreciated, a variety of designs are possible for other games as well. Using Keno as an example, it can be seen how a basic system may be established to retain Keno players. Figure 7 illustrates one type of Keno display according to one
 15 embodiment of the invention. Figure 8 shows a representative device design for one type of keno game. As can be seen, this design illustrates an electronic Keno game with a video display for the player. A sample pay table for one basic Keno design is shown in Table 8. Again, these values should be viewed as representative only; in keeping with the broad coverage intended, other possibilities may be developed or may exist for any game.

20	Marks - # Out of #	Added to JP When Hit	Number of hands for JP	Jackpot (JP)	Jackpot Starts (credits)
	3 - 4	100%	40	Progressive	80
	4 - 5	100%	30	Progressive	80
	5 - 6	200%	25	Progressive	100
25	6 - 7	200%	20	Progressive	100
	6 - 8	100%	40	Progressive	80
	7 - 9	100%	35	Progressive	80
	8 - 10	100%	30	Progressive	80

TABLE 8

30

Sample Keno Pay Table for One Type of Keno-Based System

As mentioned earlier, and regardless of the type of game presented, the jackpot event may be based upon a relatively common occurrence. Specific hands may be used in card games as a basis for the jackpot. This itself may be unique in that it is not typically considered possible to use common occurrence events such as a full house or a pair or jacks
5 or better game outcomes as a basis for a jackpot payout. Importantly, though, by using relatively common events the player may be retained for a longer period of time and the profits remaining after the payout of winnings and even jackpots may be a greater amount for the casino or game operator. In this fashion the game system may include a profit retainer (32) for the casino's continued involvement and profit. Thus beside providing enhanced
10 player satisfaction, the invention may ultimately provide greater profits to the operator or casino as an important part of coverage.

As mentioned above, the discussion included in this application is intended to serve as a basic description. The reader should be aware that the specific discussion may not explicitly describe all embodiments possible; many alternatives are implicit. It also may not
15 fully explain the generic nature of the invention and may not explicitly show how each feature or element can actually be representative of a broader function or of a great variety of alternative or equivalent elements. Again, these are implicitly included in this disclosure. Where the invention is described in functionally-oriented terminology, each aspect of the function can be accomplished by a device, person, subroutine, or program. To varying
20 degrees, apparatus claims are not only included for the devices described, but also method claims are included to address the functions the invention and each element performs. Neither the description nor the terminology is intended to limit the scope or degree of the claims which may be included as supported by this description.

Further, each of the various elements of the invention and claims may also be
25 achieved in a variety of manners. This disclosure should be understood to encompass each such variation, be it a variation of an embodiment of any apparatus embodiment, a method or process embodiment, or even merely a variation of any element of these. Particularly, it should be understood that as the disclosure relates to elements of the invention, the words for each element may be expressed by equivalent apparatus terms or method terms -- even if only
30 the function or result is the same. Such equivalent, broader, or even more generic terms

should be considered to be encompassed in the description of each element or action. Such terms can be substituted where desired to make explicit the implicitly broad coverage to which this invention is entitled. As but one example, it should be understood that all actions may be expressed as a means for taking that action or as an element which causes that action.

5 Similarly, each physical elements disclosed should be understood to encompass a disclosure of the action which that physical element facilitates. As but one example, the disclosure of a "timer" should be understood to encompass disclosure of the act of "timing" -- whether explicitly discussed or not -- and, conversely, were there only disclosure of the act of "timing", such a disclosure should be understood to encompass disclosure of a "timer" and
10 even a "means for timing". Such changes and alternative terms are to be understood to be explicitly throughout the description and claims. Additionally, the various combinations and permutations of all elements, steps, and applications should be understood as within and supported by this disclosure. Any of these should be understood as capable of being presented at any time, whether initially claimed or not.

15 In addition, as to each term used it should be understood that unless its utilization in this application is inconsistent with such interpretation, common dictionary definitions should be understood as incorporated for each term and all definitions, alternative terms, and synonyms such as contained in the Random House Webster's Unabridged Dictionary, second edition are hereby incorporated by reference. However, as to these as well, to the extent that
20 such information or statements incorporated by reference might be considered inconsistent with the patenting of this/these invention(s) such statements are expressly not to be considered as made by the applicant(s).

Throughout the desicrption, including the claims, it should be understood that the term "at least one" as used in this document and in the claims is not intended nor used to
25 mean that other claims or descriptions not incorporating the "at least one" language cannot further include one or more like elements. The language "at least one" is not intended nor used to change "open-ended" claims, inherently including devices or methods having additional elements or steps apart from those claimed, into "closed-ended" claims wherein devices or methods having additional elements would not be covered by such claims.
30 Further, when used, the use of the transitional phrase "comprising" is used to maintain the "open-end" claims, according to traditional claim interpretation. Thus, it should be

understood that the term "comprise" or variations such as "comprises" or "comprising" or the like, are intended to imply the inclusion of a stated element or step or group of elements or steps but not the exclusion of any other element or step or group of elements or steps. Such terms should be interpreted in their most expansive form so as to afford the applicant
5 the broadest coverage legally permissible. It may even be replaced with terms such as "including" or terms deemed to give the maximum legal protection as may be desirable in countries such as Australia and the like.

Any acts, rules, or the like applicable to the use of this technology, any patents, publications, or other references mentioned or listed are hereby incorporated by reference.
10 Furthermore, the earlier priority application, US Application No. 60/272,666 (with its incorporated references) and the following list of references are hereby incorporated by reference in their entirety. However, to the extent statements made therein might be considered inconsistent with the patenting of this invention such statements are expressly not to be considered as made by the applicant(s).

	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	4,861,041	8/29/89	Jones, et al.	273	292	7/5/88
	5,280,909	1/25/94	Tracy	273	138	2/6/92
5	5,377,973	1/3/95	Jones, et al.	273	85	2/14/94
	5,487,547	1/30/96	Hobert	273	274	9/13/94
	5,531,448	7/2/96	Moody	495	952	6/28/95
	5,536,016	7/16/96	Thompson	273	269	9/26/94
	5,564,700	10/15/96	Celona	463	27	2/10/95
10	5,586,766	12/24/96	Forte, et al.	439	687	5/12/95
	5,725,216	3/10/98	Jones	273	292	10/13/95
	5,803,809	9/8/98	Yoseloff	463	13	9/18/96
	5,851,147	12/22/98	Stupak, et al.	717	383	9/17/96
	5,934,998	8/10/99	Forte, et al.	463	12	11/14/96
15	5,951,011	9/14/99	Potter, et al.	273	292	7/18/97
	6,015,347	1/18/00	Maahs, et al.	463	27	12/26/96
	6,024,642	2/15/00	Stupak	463	20	12/16/97
	6,045,130	4/4/00	Jones, et al.	273	292	3/9/99
	6,059,659	5/9/00	Busch, et al.	463	17	6/6/97
20	6,068,553	5/30/00	Parker	463	27	9/15/97
	6,073,930	6/13/00	Jones, et al.	273	292	11/12/97
	6,109,612	8/29/00	Moore	273	292	7/26/99
	6,110,043	8/29/00	Olsen	463	27	10/24/97
	6,179,290 B1	1/30/01	Maahs	273	292	12/26/96

25 Finally, the claims initially set forth with this application are all hereby incorporated
 by reference as part of this description of the invention. The applicant expressly reserves the
 right to use all of or a portion of such incorporated content as additional description to
 support, present, or re-present any of or all of the claims or any element or component
 thereof, and the applicant further expressly reserves the right to move any portion of or all
 30 of the incorporated content or any element or component thereof from the description into
 the claims and vice-versa as necessary to define the matter for which protection is sought by
 this application or by any subsequent continuation, division, or continuation-in-part

application thereof, or to obtain any benefit of any reduction in fees pursuant to, or to comply with the patent laws, rules, or regulations of any country or treaty, and such content incorporated by reference shall survive during the entire pendency of this application including any subsequent continuation, division, or continuation-in-part application thereof
5 or any reissue or extension thereon regardless of any claims amendments or the like presented.